## **Exhibit 300: Capital Asset Summary**

#### Part I: Summary Information And Justification (All Capital Assets)

#### Section A: Overview & Summary Information

Date Investment First Submitted: 2010-09-01
Date of Last Change to Activities: 2012-08-15
Investment Auto Submission Date: 2012-02-29
Date of Last Investment Detail Update: 2012-06-29
Date of Last Exhibit 300A Update: 2012-08-15

Date of Last Revision: 2012-08-15

Agency: 006 - Department of Commerce Bureau: 51 - US Patent and Trademark Office

**Investment Part Code: 01** 

Investment Category: 00 - Agency Investments

1. Name of this Investment: USPTO Patents End-to-End: Software Engineering (PE2E-SE)

2. Unique Investment Identifier (UII): 006-000803200

Section B: Investment Detail

 Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.

PE2E-SE will create a new generation of patent systems using modern data formats to provide end-to-end electronic processing. The new system is required to meet our agency's goals of providing timely examination of patent applications including: - Reducing average pendency times to 10 months for first office action on merits for patent applications and 20 months for total pendency; - Improve patent examination quality; and - Improve/enhance patent appeal/post-grant processes. The PE2E-SE OMB 300 will use iterative development milestones based on the Memorandum for Chief Information Officers M-10-27 by Vivek Kundra improving transparency, performance management, and effective investment oversight while using an iterative development methodology to maximize adaptability to business needs. The next iterations scope will be defined in detail/estimated/baselined/documented in the OMB 300. Future iterations planning activities will take place during current iterations, permitting project teams and internal/external customers to provide feedback that leads to detailed milestones/estimates for the next iteration (along with an OMB 300 rebaseline reflecting progressive elaboration of scope that is typical in agile development). To ensure performance is correctly measured and accountable for deliverables/budgets, the USPTO CIO will approve all rebaselines prior to submission to OMB.

2. How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.

Current systems were constructed in response to functional requirements from segregated business units. Systems are stovepipe in design, have insular technologies, and provide limited interoperatability. This limited automated interaction resulted in corresponding manual processes/error checking and laborious workarounds simulating an automated process and caused significant costs to maintain the operation s business processes and IT s cobbling together of disparate systems. Patent File Wrapper, PE2E-SE's predecessor, did not succeed. The PE2E-SE approach is entirely different. In PFW, technical solutions were sought and business processes were fit to suit them. PFW was centered on condensing existing AISs to new technology. PE2E-SE is using the base business process with the infrastructure/architecture through an agile/iterative process. PE2E-SE will create a new generation of patent systems using modern data formats to provide end-to-end electronic processing. The new system is required to meet our agency s goals of providing timely examination of patent applications including: - Reducing average pendency times to 10 months for first office action on merits for patent applications and 20 months for total pendency; - Improve patent examination quality; and - Improve/enhance patent appeal/post-grant processes.

- 3. Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.
  - \* Develop and evaluate vendor prototype solution software and architecture \* Convert the legacy data from image to text Phase I Patent Application Text Initiative rolled out to 200 plus patent examiners able to examine on over 6,000 patent applications specifications \* Implement Architecture and Infrastructure 1.0 Central Re-examine Unit deployment of new front-end and backend environment of about 80 examiners \* Train team members in Agile Trained core team members working on agile PE2E projects.
- 4. Provide a list of planned accomplishments for current year (CY) and budget year (BY).

Implement Architecture and Infrastructure 1.0. Train team members in Agile: Phase II. Train Team Members in Agile 3.0. Design the User interface. Build internal cloud environment: Phase I, and Phase II. Implement Agile activities (e.g. sprints) for high value targets - Applicant to Office Interface. Start Agile activities (e.g. sprints) for IP5 initiatives: Cooperative Patent Classification (CPC) Database, Cooperative Patent Classification (CPC) Collaboration, and Common Citation Documentation. Implement Architecture and Infrastructure 2.0: Patent Examination Tools and Infrastructure, PE2E Office Action - Workflow, PE2E Office Action - Administration, PE2E Office Action - Forms/Data, PE2E Office Action - Word Processing, Business Architecture, and Status & Document Type Taxonomies. Implement Agile activities (e.g. sprints) for high value targets: Knowledge Management and Collaboration Tools Integration with Examination Tools, and eGrant. Agile activities (e.g. sprints) for patent search capabilities: Exploring search technologies, Automated Prior Art Searches against Patent Text, CPC/ECLA classification in search system, and CPC/ECLA classification data migration. Implement Conversion of Legacy Data: Patent Application Text Initiative (PATI

1.1), Improved Patent Text Analytics, Convert existing Office Action data to XML, Comprehensive Patent Application Family Maps, Continuous Capture of Application Data from Image, and IFW images and legacy services retired. Support Program Management for Patents. Support Program Management for OCIO. Architecture and Infrastructure 3.0. Conversion of Legacy Data - Additional Patent Data Conversion. Agile activities (e.g. sprints) for high value targets - Business Re-engineering identified. Agile activities (e.g. sprints) for high value targets for patent search capabilities FY 2013. Deployment support for examiners.

5. Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.

2010-06-18

#### Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding										
	PY-1 & Prior	PY 2011	CY 2012	BY 2013						
Planning Costs:	\$0.0	\$4.1	\$0.0	\$0.0						
DME (Excluding Planning) Costs:	\$0.0	\$11.1	\$51.2	\$54.3						
DME (Including Planning) Govt. FTEs:	\$0.0	\$3.4	\$3.6	\$3.2						
Sub-Total DME (Including Govt. FTE):	0	\$18.6	\$54.8	\$57.5						
O & M Costs:	\$0.0	\$0.0	\$0.0	\$0.0						
O & M Govt. FTEs:	\$0.0	\$0.0	\$0.0	\$0.0						
Sub-Total O & M Costs (Including Govt. FTE):	0	0	0	0						
Total Cost (Including Govt. FTE):	0	\$18.6	\$54.8	\$57.5						
Total Govt. FTE costs:	0	\$3.4	\$3.6	\$3.2						
# of FTE rep by costs:	0	24	25	22						
Total change from prior year final President's Budget (\$)		\$5.1	\$11.4							
Total change from prior year final President's Budget (%)		37.20%	26.20%							

# 2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Re-allocation of funds caused by recent adjustments to the USPTO FY12 funding levels resulted in a reduction of the budget for this investment.

#### Section D: Acquisition/Contract Strategy (All Capital Assets)

	Table I.D.1 Contracts and Acquisition Strategy										
Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value (\$M)	Туре	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	1344	DOC44PAPT1 000012	DOC44PAPT10 00012	1344							
Awarded	1344	DOC50PAPT05 01005	DOC50PAPT05 01005	1344							
Awarded	1344	DOC50PAPT11 00006	DOC50PAPT11 00006	1344							
Awarded	1344	DOC50PAPT11 00007	DOC50PAPT11 00007	1344							
Awarded	1344	DOC56PAPT1 213001	DOC50PAPT12 00017	1344							

### 2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

Earned value Management reporting is required and implemented in all contracts where the contractors are engaged in development, modernization, and enhancement (DME) type work over \$1M and longer than 90 days in duration. Contracts with EVM reporting include the System Development and Integration (SDI) contract.

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# **Exhibit 300B: Performance Measurement Report**

Section A: General Information

**Date of Last Change to Activities: 2012-08-15** 

Section B: Project Execution Data

		Table II.B.	1 Projects		
Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
8032D11101	PE2E 1 0 (CRU)	Implement functionality in the PE2E system to the Patent Corps CRU.			
8032D11102	Convert the legacy from image to text Phase 1	Patent Application Text (PATI) 1.0 functionality released to two Patent Corps Workgroups; initial OCR & PG Pub Data conversion; initial Examining functionality e.g. claim tree.			
8032D11185	Train Team Members in Agile Phase I	Train team members in Agile - FY 11.			
8032D11186	Design the User interface - Phase I	Examiner Participation - UI Design process assessing Storyboards, Wireframes. Establish Clickable Prototypes based on the user requirements.			
8032D11187	Support Program Management for Patents FY11	Provide Patents Program Support to PE2E investment.			
8032D11188	Support Program Management for OCIO FY11	OCIO Support of the PE2E Portfolio and its programs.			
8032D12171	Patent examination tools and infrastructure	Deliver initial Workflow functionality and new user interface in PE2E. Creating a			

		Table II.B.	1 Projects		
Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
		system that is usable by the entire Patent corps, not just the CRU examiners.			
8032D12173	Train Team Members in Agile Phase II	Train team members in Agile - FY 12.			
8032D12176	Exploring search technologies	This project will provide a prototype and design, which will focus on replacing the current USPTO Search systems.			
8032D12177	CPC Database	Database and Application for synchronization between US and EPO of a classification system according to an agreed database schema.  Loading initital versions of CPC. Establish beginning functionalities of official classification system to retire CDS.			
8032D12178	CPC Collaboration	Collaboration Environment with EPO; This make take the form of an EPO sponsored web based tool that could require minor network or application changes.			
8032D12179	PATI patent application text initiative 1 1	Release PATI 1.0 functionality to entire Patent Corps; Additional OCR & PG Pub Data conversion; Examining functionality e.g. claim tree for the entire Patent Corps.			
8032D12183	Support Portfolio Management for FY12	Provide OCIO Program Support to PE2E investment.			
8032D12184	CPC legacy system integration	Address the patent legacy systems for the January 2013 agreement for the USPTO examination to be based on CPC.			
8032D12215	PE2E Office Action	Establish an infrastructure for the administration component of the office action. This project will address people-to-organization relationships, functional authority,			

		Table II.B.	1 Projects		
Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
		delegation of power, common citation document forms, and GUI requirements.			
8032D12218	Business Architecture	Establish a business architecture to document pain points, priorities and dependencies in the Patent Business.			
8032D12227	Comprehensive patent family maps	The PALM table housing patent family data will be remodeled to allow for comprehensive relationships to be stored.  Services would be created to access the data of the new table and eDAN would be modified to call and utilize this information.			
8032D12228	PATI continuous capture of application data	This project would be continuous automated conversion of 3 document types (clm, spec, abs) from image (PDF or TIFF) to PATI-XML text. The solution would be based on the CRU model and would be adaptable to allow for additional document types to be added.			
8032D11159	PE2E-Conversion of Legacy Data Architecture	Convert legacy data and architecture to the new PE2E environment.			
8032D12237	Continuous capture of CRU data	Project is a procurement to provide data for the CRU in PE2E throughout FY 12. Award has been made to vendor.			
8032D12250	CPC classification in search systems	PTF (search) change to show CPC symbols in WEST.			
8032D12274	Backfile Migration	Convert IFW image data to PATI-XML.			
8032D12300	OPD (One Portal Dossier)	Implementation of OPD Specification 1.0.			
8032D12307	CPC Classification in Search Systems - Backend	Implement the latest BRS text loader and modify the CSS load			

		Table II.B.	1 Projects					
Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)			
		conversion software to enable loading the full text of all documents and CPC allocations.						
8032D12323	CPC Classification in Search Systems - Frontend	EAST/WEST change for Clustering of CPC classification and USPC.						
8032D12382	Convert existing office action data to XML	With this project, the MS Word Document versions of completed Office Actions that are stored by OACS would be accessed, converted to an as yet undefined XML standard and uploaded into the content management system for text.						
8032D1716	PATI-Gap Conversion	Convert backfile documents received since Jan. 25, 2012 and will be received before Continuous capture begins into XML for PATI and PE2E use.						
8032D13348	Applicant to Office Interface - (TEXT2PTO)	This project will continue the investigate with receiving structured text from the applicant and bring efficiencies in the ecommerce. It will dovetail with FPNG and MYUSPTO.						
8032D13365	BPR eGrant Phase 1	A project that mainly leverages the legacy system to publish Patents on-line and reduce the publication cycle by multiple weeks.						
	Activity Summary							
	Roll-up of Information Provided in Lowest Level Child Activities							
Project ID Na	ame Total Cost of Project Activities (\$M)		t Schedule Cost Variance nce (%) (\$M )	Cost Variance To	tal Planned Cost Count of (\$M) Activities			
8032D11101 PE2E 1	0 (CRU)							

#### **Activity Summary**

Roll-up of Information Provided in Lowest Level Child Activities End Point Schedule

Cost Variance

Count of

Project ID	Name	Total Cost of Project Activities (\$M)
8032D11102	Convert the legacy from image to text Phase 1	
8032D11185	Train Team Members in Agile Phase I	
8032D11186	Design the User interface - Phase I	
8032D11187	Support Program Management for Patents FY11	
8032D11188	Support Program Management for OCIO FY11	
8032D12171	Patent examination tools and infrastructure	
8032D12173	Train Team Members in Agile Phase II	
8032D12176	Exploring search technologies	
8032D12177	CPC Database	
8032D12178	CPC Collaboration	
8032D12179	PATI patent application text initiative 1 1	
8032D12183	Support Portfolio Management for FY12	
8032D12184	CPC legacy system integration	
8032D12215	PE2E Office Action	
8032D12218	Business Architecture	
8032D12227	Comprehensive patent family maps	

#### **Activity Summary**

Roll-up of Information Provided in Lowest Level Child Activities

			Roll-up of Information	on Provided in Lowest Le	evel Child Activities			
Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M)	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
8032D12228	PATI continuous capture of application data							
8032D11159	PE2E-Conversion of Legacy Data Architecture							
8032D12237	Continuous capture of CRU data							
8032D12250	CPC classification in search systems							
8032D12274	Backfile Migration							
8032D12300	OPD (One Portal Dossier)							
8032D12307	CPC Classification in Search Systems - Backend							
8032D12323	CPC Classification in Search Systems - Frontend							
8032D12382	Convert existing office action data to XML							
8032D1716	PATI-Gap Conversion							
8032D13348	Applicant to Office Interface - (TEXT2PTO)							
8032D13365	BPR eGrant Phase 1							

				Key Deliverables				
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days )	Schedule Variance (%)
8032D12250	Design/ Develop/ Test/ Implement	Design/Develop/Test/I mplement	2012-04-13	2012-04-13		149	-140	-93.96%
8032D12179	Design / Develop /	Design/Develop/Test/I	2012-04-30	2012-04-30		147	-123	-83.67%

				Key Deliverables				
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days )	Schedule Variance (%)
	Test / Implementation	mplement						
8032D12274	Design / Develop / Test / Implementation	Design / Develop / Test / Implement	2012-07-31	2012-07-31		176	-31	-17.61%
8032D12215	Design/Develop/Test/I mplement	Design/Develop/Test/I mplement	2012-09-28	2012-12-31		361	-94	-26.04%
8032D12171	Design/Develop/Test/I mplement	Design/Develop/Test/I mplement	2012-12-31	2012-12-31		301	0	0.00%
8032D12176	Design/Develop/ Test/ Implement	Design/Develop/Test/I mplement	2012-12-31	2012-12-31		349	0	0.00%
8032D12300	Design / Develop / Test / Implementation (OPD Revision)	Design/Develop/Test/I mplement	2013-04-30	2013-07-31		351	-92	-26.21%
8032D1716	Design / Develop / Test / Implementation (PATI-Gap Revision)	Design/Develop/Test/I mplement	2013-06-28	2013-06-28		347	0	0.00%
8032D12228	Design / Develop / Test / Implementation (PATI CCAD Revision)	Design/Develop/Test/I mplement	2013-06-28	2013-06-28		326	0	0.00%
8032D12177	Design/Develop/Test/I mplement	Design/Develop/Test/I mplement	2013-10-09	2013-10-09		555	0	0.00%

#### Section C: Operational Data

	Table II.C.1 Performance Metrics								
Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency	

NONE